

Amendments to the Claims

This listing of claims replaces all previous listings.

1. (Amended) A gear box for a bed end, comprising:
a housing;
first and second input shafts in said housing for receipt of rotational force for operating said gear box; and
a cover associated with ~~supported on~~ said housing and having for movement ~~between~~ a first closed position covering said first input shaft and enabling access to said second input shaft, and a second closed position covering said second input shaft and enabling access to said first input shaft.
2. (Original) A gear box as set forth in claim 1 wherein said cover pivots on said housing between the first closed position and the second closed position about a pivot axis.
3. (Original) A gear box as set forth in claim 1 wherein said cover includes first and second ears that are resiliently movable relative to each other to enable movement of said cover into and out of said first and second closed positions.
4. (Original) A gear box as set forth in claim 3 wherein said ears are movable closer to each other to enable movement of said cover into and out of said first and second closed positions and are movable away from each other to enable latching of said cover in one of said first and second closed positions.
5. (Original) A gear box as set forth in claim 1 including a first latch that releasably holds said cover in the first closed position and a second latch that releasably holds said cover in the second closed position, said first latch including a first latching portion of said housing that is engageable with a latching section of said cover, and said second latch including a second latching portion of said housing that is engageable with said latching section of said cover.

6. (Original) A gear box as set forth in claim 5 wherein said latching section of said cover includes first and second ears that are resiliently movable relative to each other to enable movement of said cover into and out of said first and second closed positions.

7. (Original) A gear box as set forth in claim 6 wherein said cover has an open position intermediate said first and second closed positions, each one of said latching portions of said housing including at least one camming surface for moving said ears toward each other upon movement of said latching section of said cover from the open position into one of the first and second closed positions.

8. (Original) A gear box as set forth in claim 1 wherein:
said cover is supported on said housing for pivotal movement about a pivot axis relative to said housing between the first closed position and the second closed position; and
said cover includes first and second ears that are resiliently movable relative to each other to enable movement of said cover into and out of said first and second closed positions.

9. (Original) A gear box as set forth in claim 8 including a first latch that releasably holds said cover in the first closed position and a second latch that releasably holds said cover in the second closed position;

said first latch including a first latching portion of said housing that is engageable with a latching section of said cover, and said second latch including a second latching portion of said housing that is engageable with said latching section of said cover;

said latching section of said cover including first and second ears that are resiliently movable relative to each other to enable movement of said cover into and out of said first and second closed positions; and

said cover having an open position intermediate said first and second closed positions, each one of said latching portions of said housing including at least one camming

surface for moving said ears toward each other upon movement of said latching section of said cover from the open position into one of the first and second closed positions.

10. (Canceled) A bed end comprising:
a frame; and
a removable cover for said frame;
said frame having at least one drain opening for draining water from said frame.

11. (Canceled) A bed end as set forth in claim 10 wherein said frame includes a bottom rail, said bottom rail of said frame having at least one drain opening for draining water from said frame.

12. (Canceled) A bed end as set forth in claim 11 wherein said bottom rail has two spaced apart drain openings located at opposite ends of said bottom rail.

13. (Canceled) A bed end as set forth in claim 11 wherein said bottom rail has a U-shaped configuration with a base and two side legs, said side legs extending generally vertically and said base being at the bottom of said bottom rail when said bed end is in use, said at least one drain opening being formed in said base of said bottom rail.

14. (Canceled) A bed end as set forth in claim 10 wherein said removable cover includes a plurality of pieces and has seams where pieces of said cover engage each other, said seams enabling admittance of water into the interior of said bed end upon washing of said bed end.

15. (Canceled) A bed end as set forth in claim 14 wherein said plurality of pieces of said removable cover includes a main panel and two end caps, said removable cover having said seams where said end caps engage said main panel.

16. (Canceled) A bed end as set forth in claim 15 wherein said frame includes a bottom rail, said bottom rail of said frame having two spaced apart drain openings located at opposite ends of said bottom rail.

17. (Canceled) A bed end as set forth in claim 10 including an elevation mechanism supported on said frame for moving said frame vertically relative to ground-engaging legs of said bed-end.

18. (Canceled) A bed end as set forth in claim 17 wherein said frame includes a bottom rail, said bottom rail of said frame having two spaced apart drain openings located at opposite ends of said bottom rail.

19. (Canceled) A bed end as set forth in claim 18 wherein said removable cover includes a main panel and two end caps, said removable cover having seams where said end caps engage said main panel, said seams enabling admittance of water into the interior of said bed end upon washing of said bed end.

20. (Canceled) A bed end comprising:
a frame including a bottom rail and a side rail;
an elevation mechanism supported on said frame for moving said frame vertically relative to first and second ground-engaging legs of said bed end;
a removable cover for said frame, said cover including an end cap;
said side rail having a hook;
said end cap having a hook-receiving portion that receives said hook to support said end cap on said first side rail.

21. (Canceled) A bed end as set forth in claim 20 wherein said hook-receiving portion of said end cap is located on a lower end portion of said end cap, said hook projecting upward from said side rail.

22. (Canceled) A bed end as set forth in claim 21 wherein said end cap has a fastener portion that is aligned with a fastener portion in said side rail when said end cap is supported on said side rail.

23. (Canceled) A bed end as set forth in claim 22 wherein said fastener portion of said end cap included a fastener opening that is the only fastener opening in said end cap.

24. (Canceled) A bed end as set forth in claim 23 wherein said hook projects from said side rail in a direction generally toward said fastener opening in said side rail.

25. (Canceled) A bed end as set forth in claim 20 wherein said removable cover includes a main body portion that covers a central portion of said frame, said main body portion including front and back panels of said cover, said end cap having portions that engage said front and back panels of said cover to hold said cover in a bowed or curved configuration.

26. (Canceled) A bed end comprising:
a frame having a side rail; and
a removable cover for said frame;
said cover including a panel having an edge portion located adjacent to said side rail;
said cover further including an end cap, said end cap having a portion that extends between said side rail and said edge portion of said cover and that maintains said edge portion of said cover in a curved configuration.

27. (Canceled) A bed end as set forth in claim 26 wherein said end cap has a base wall and a side wall that extends generally parallel to said panel of said cover, said end cap portion being spaced apart from said side wall to enable said edge portion of said cover to extend between said side wall and said end cap portion while said side wall of said end cap overlies said side rail of said frame.

28. (Canceled) A bed end as set forth in claim 27 wherein said end cap portion comprises a plurality of fingers that project from a wall of said end cap and that are formed as one piece with said wall of said end cap.

29. (Canceled) A bed end as set forth in claim 26 wherein said edge portion of said cover is captured between said fingers and a side wall of said end cap.

29. (Canceled) A bed end as set forth in claim 26 wherein said removable cover panel has a generally U-shaped configuration including a top wall and first and second side walls extending from said top wall, each one of said side walls of said panel having a respective edge portion located adjacent to said side rail;

said end cap having a generally U-shaped configuration including a base wall and first and second side walls extending from said base wall, said side walls of said end cap having a curved configuration and cooperating with said end cap portion to hold said edge portions of said side walls of said cover panels in said curved configuration.

30. (Canceled) A bed end as set forth in claim 29 wherein said end cap portion comprises a first part that cooperates with said first side wall of said end cap to hold said edge portion of said first side wall of said cover panel in a curved configuration, and a second part that cooperates with said second side wall of said end cap to hold said edge portion of said second side wall of said cover panel in a curved configuration.

31. (Canceled) A bed end as set forth in claim 30 wherein said edge portion of said first side wall of said cover is captured between said first part of said end cap portion and said first side wall of said end cap, and said edge portion of said second side wall of said cover is captured between said second part of said end cap portion and said second side wall of said end cap.

32. (Canceled) A bed end as set forth in claim 26 further comprising first and second ground-engaging legs movable along said side rails of said frame relative to said side rails and to said cover, and an elevation mechanism supported on said frame for moving said frame vertically relative to ground-engaging legs.

33. (Canceled) A bed end comprising:
a frame having a side rail; and
a removable cover for said frame;
said cover including a panel having an edge portion located adjacent to said side rail;
said cover further including an end cap supported on said side rail, said end cap having a side wall and having inner portions spaced from said side wall, said edge portion of said cover being captured between said side wall and said inner portions of said end cap.

34. (Canceled) A bed end as set forth in claim 33 wherein said side wall of said end cap has a curved surface facing said inner portions and said inner portions of said end cap have surfaces defining a complementary curved configuration facing said side wall, said edge portion of said cover being captured between said curved surface and said inner portion surfaces.

35. (Canceled) A bed end as set forth in claim 33 wherein said side wall of said end cap and said inner portions of said end cap define a channel for receiving an edge portion of said cover, said channel having a bowed or curved configuration.

36. (Canceled) An adjustable bed for use on a floor, said bed comprising:
a bed spring having a head end portion and a foot end portion;
a first bed end including a height adjustment mechanism that is operable to support said head end portion of said bed spring at a plurality of different heights above a floor;

a second bed end interchangeable with said first bed end and including a height adjustment mechanism that is operable to support said foot end portion of said bed spring at a plurality of different heights above a floor; and

a manual crank for actuating said height adjustment mechanism of said first bed end and of said second bed end, said manual crank being releasably connectable with either one of said first and second bed ends.

37. (Canceled) A bed as set forth in claim 36 wherein said manual crank includes a securing mechanism for releasably securing said manual crank to said first bed end.

38. (Canceled) A bed as set forth in claim 37 wherein said securing mechanism comprises a detent member engageable with a portion of said height adjustment mechanism to resist removal of said manual crank from said height adjustment mechanism without application of a strong pulling force.

39. (Canceled) A bed as set forth in claim 37 wherein said securing mechanism comprises a detent member having a resilient portion that resiliently engages a portion of said height adjustment mechanism.

40. (Canceled) A bed as set forth in claim 39 wherein said securing mechanism comprises a wire spring member having a resilient portion that resiliently engages a drive shaft portion of said height adjustment mechanism.

41. (Canceled) A bed as set forth in claim 36 including an electric motor mounted on said bed spring at a location intermediate said first bed end and said second bed end, and a drive shaft connected between said motor and said first and second bed ends, said drive shaft being rotatable by said electric motor to selectively raise and lower said head end portion and said foot end portion of said bed spring.

42. (Canceled) An adjustable bed for use on a floor, said bed comprising:
a bed spring having a head end portion and a foot end portion;
a first bed end including a height adjustment mechanism that is operable to support said head end portion of said bed spring at a plurality of different heights above a floor;
a second bed end including a height adjustment mechanism that is operable to support said foot end portion of said bed spring at a plurality of different heights above a floor;
and
a manual crank for actuating said height adjustment mechanism of said first bed end and of said second bed end, said manual crank being releasably connectable with either one of said first and second bed ends, said manual crank including a securing mechanism for releasably securing said manual crank to said first bed end.

43. (Canceled) A bed as set forth in claim 42 wherein said securing mechanism comprises a detent member engageable with a portion of said height adjustment mechanism to resist removal of said manual crank from said height adjustment mechanism without application of a strong pulling force.

44. (Canceled) A bed as set forth in claim 43 wherein said securing mechanism comprises a detent member having a resilient portion that resiliently engages a portion of said height adjustment mechanism.

45. (Canceled) A bed as set forth in claim 44 wherein said securing mechanism comprises a wire spring member having a resilient portion that resiliently engages a drive shaft portion of said height adjustment mechanism.

46. (Canceled) A bed end for an adjustable bed including a bed spring having a head end portion and a foot end portion, said bed end including a height adjustment mechanism that is operable to support said head end portion of said bed spring at a plurality of different heights above a floor, said height adjustment mechanism including a lead screw rotatable by a gearbox,

said gearbox adapted to selectively receive rotational force from an electric motor in two different manners so as to provide rotation of said lead screw in a selected one of two different directions of rotation, said height adjustment mechanism also including a slip nut threadedly engaged with said lead screw for helping to synchronize the vertical position of said bed end above the floor.

47. (Canceled) A bed as set forth in claim 46 wherein said lead screw moves vertically relative to said first portion of said bed end in response to rotation of said lead screw about said axis thereby to effect vertical movement of said second portion of said bed end relative to said first portion of said bed end.

48. (Canceled) A bed end as set forth in claim 46 including a first portion for engagement with the floor, including at least one leg, and a second portion supported on said first portion for vertical movement relative to said first portion and thereby relative to the floor, said second portion of said bed end including said lead screw, said first portion of said bed end including said slip nut.

49. (Canceled) A bed end as set forth in claim 46 wherein said slip nut is formed in two pieces each extending about 180 degrees around said axis.

50. (Canceled) A bed end as set forth in claim 49 wherein said two pieces of said slip nut are identical to each other.

51. (Canceled) A bed end as set forth in claim 50 wherein each one of said two pieces of said slip nut has an axially extending portion for engagement with a projecting portion of said lead screw, said axially extending portions of said two slip nut pieces extending in opposite axial directions.

52. (New) A gear box as set forth in claim 1 wherein the cover is associated with a primary opening on the gearbox housing, and the gearbox housing also has a secondary opening for enabling access to one of the first and second input shafts by a manual crank.

53. (New) A gear box as set forth in claim 52 further including a manual crank engageable through the secondary opening with the first input shaft and being removable from the first input shaft and thereby from the gear box of the bed end.

54. (New) A gear box as set forth in claim 52 wherein the cover enables access to a first end portion of the first input shaft, and the secondary opening enables access to an opposite second end portion of the first input shaft.

55. (New) A gear box as set forth in claim 54 further including a second cover supported on the gearbox housing and selectively movable to cover or open the secondary opening.

56. (New) A gear box as set forth in claim 1 further including a manual hi-lo crank that includes a securing mechanism for releasably securing the manual crank to the gear box.

57. (New) A gear box as set forth in claim 56 wherein the securing mechanism comprises a detent member engageable with the first input shaft to resist removal of the manual crank from the height adjustment mechanism without application of a strong pulling force.

58. (New) A gear box as set forth in claim 56 wherein the securing mechanism comprises a detent member having a resilient portion that resiliently engages a portion of the first input shaft.

59. (New) A gear box as set forth in claim 58 wherein the securing mechanism comprises a wire spring member.

60. (New) A gear box as set forth in claim 1 having a main body portion that encloses the first and second input shafts and having an output portion that projects from the main body portion and that is adapted to be secured to the frame of a bed end.

61. (New) A gear box as set forth in claim 60 wherein the output portion has a chamber adapted to receive an output shaft that is rotatable with a lead screw of the bed end, the lead screw and the frame and the gearbox being movable vertically upon raising and lowering movement of the bed.

62. (New) A gear box as set forth in claim 61 wherein the housing has first and second shaft chambers for receiving the first and second output shafts, respectively, and

63. (New) A gear box as set forth in claim 60 wherein the primary opening in the gear box housing opens into an input shaft chamber that extends transversely to and communicated with the output chamber.

64. (New) A gear box as set forth in claim 1 wherein the gear box is adapted to be secured to a frame of a bed end for vertical movement with the bed end frame.

65. (New) An assembly including at least first and second gear boxes, each gear box including a housing, first and second input shafts in the housing for receipt of rotational force for operating the gear box, and a cover associated with the housing and having a first closed position covering the first input shaft and enabling access to the second input shaft and a second closed position covering the second input shaft and enabling access to the first input shaft.

66. (New) A gear box for a bed end, comprising:
a housing;
an input shaft in said housing for receipt of rotational force for operating said gear box, said input shaft having first and second gears; and

an output gear in said housing for transmitting rotational force from said input shaft to said bed end;

said input shaft being selectively movable in said housing between having a first position in which said first gear is in engagement with said output gear and a second position in which said second gear is in engagement with said output gear for receiving rotational force and for in response either raising or lowering the bed end.